

Active Optical Clocks

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Hydrogen maser, the active microwave clock, has played a significant role in modern science near fifty years. Then, at optical regime, what an active optical clock will be?

I will present the principles and techniques of active optical clock, which is a special laser combining the laser physics of one-atom laser, bad-cavity gas laser, super-cavity stabilized laser and optical atomic clock. Possible experimental configurations of active optical clock based on thermal atomic beam, optical lattice trapped atoms, MOT trapped atoms will be included in my talk.